Family Boat Building

Tools and Supplies Provided by Participant

**Basic Tools Needed**

- Claw Hammer, two would be helpful
- #2 square head Screw Driver
- Phillips Head Screw Driver
- Hand Saw (fine crosscut)
- Combination Square
- Hand Plane (Block Plane preferred)
- Caulking Gun
- Level
- At least two 4” “C” Clamps
- Portable Drill with extra battery and charger
  - Drill bits 1/8 through 1/4 inch (3/8 if you have it)
  - Countersink
  - Philips head driver
  - #2 square head driver
- Tape Measure
- Bucking Iron (four pound Sledge Hammer – preferable without the handle)
  - Or similarly massive object to back up nailing
- Plastic Putty Knife
- Bucket, Bag or Box to contain tools on site
- Extension cord

**Helpful But Optional**

- Power bar
- Orbital Sander
- Saber saw with fine cut plywood blades

**Basic Supplies Needed**

- Pencils
- Marking Pen
- Rags and Paper Towels (2 rolls)
- Bar soap for lubricating screws
- Paint thinner for clean up
- Hand Cleaner
- Sand Paper (four sheets each 80 grit and 120 grit)
Family Boat Building

UNH Marine Docent
Family Boat Building

Description

The UNH Marine Docents Family Boat Building project is modeled after the successful program offered by Wooden Boat Magazine where fifty families each build a row boat over a single weekend. Our program differs in several aspects: (1) the program is much smaller, limited to six boats; (2) an experienced builder is assigned to each family; (3) Docent volunteers assemble the materials and machine the parts lowering the cost by hundreds of dollars, with higher quality components; and (4) the boat we offer is a more sophisticated sailboat specially designed for family construction.

Program Goals

Our vision is to create a satisfying, rewarding and successful family project that produces a product to be enjoyed for years to come. The participant families experience the joy and pride of watching a pile of lumber grow into a beautiful and useful boat through their own efforts. In the process, they will grow as a family while they:

- Develop hands on woodworking and teamwork skills
- Learn about our marine heritage and the natural resources of our coastal and estuarine environment.
- Learn safe on-the-water practices.

Eligibility / Selection Criteria

The program is designed for families with at least one youth age 12 to 20. Extended families and single parents are welcome. All should have rudimentary skills such as hammering and using a handsaw and simple measurement. The youth especially, must have the desire and stamina to put in three full days of work (fun hopefully) with more required to apply paint and varnish. Some strength is required to seat the nails used or hold the Bucking Iron (a sledge hammer head) in place.

A strong desire - to get on the water, learn a new skill and do something as a family - is more important than woodworking skill or experience. The ideal candidate family would be the dad or mom that feels he or she is “all thumbs,” but needs only supervision and encouragement. Experienced docent volunteers will provide classroom teaching as well as individually supervised construction.

Because we have only six spaces, we anticipate some qualified applicants will not be accepted. With rolling admissions beginning in early winter of each year, *early* applicants (and New Hampshire residents) will receive preference in cases of parity of choice. The UNH Marine Docents will make the final participant selection. No applicant is assured acceptance without notification and the required deposit.
Shop / Facility

The construction will take place in a large equipment shed at the UNH Kingman Farm in Madbury, near the UNH campus. Building jigs and shelter are provided. There is limited power, which must be shared. There is no heat. Because we are guests, participants must especially mindful of parking, toilet facilities and clean up.

Additional observer guests can be accommodated with permission. Very small children will require supervision by non-builders to keep construction on schedule.

Shop rules and safety procedures must be followed assiduously.

Boat Description

The boat is a cat boat (single sail) specifically designed for family building for our program. Overall length is 11’ 4” with a beam of 5’. Draft is 30” with the dagger board down, less than 6” with it up. The wide beam and flat bottom make it very stable. It easily carries two adults or even three when rowing. The spars are solid spruce for a gunter configuration. The 60 sq. ft. sail makes her a sprightly sailer. Construction is marine grade ¼” plywood over 5/8” plywood frames and transom. Fastenings are stainless or bronze. Modern adhesives virtually assure watertight integrity. The hull weighs about 120 pounds and can be transported car-top, in a pickup or on a small trailer. The floorboards and sail rig which are removable and shorter than the boat are easily stored in the boat or separately for transport. A sample of the completed boat will be available at the farm for your viewing and for guidance during construction. Everything (except paint, life jackets and oars) is provided to get you on the water.

Building Schedule

Building is scheduled for the weekend of May 15, 16 and 17, 2015.

We will meet at Kingman Farm on Thursday evening, May 14, 2015, for a classroom session and to get acquainted and answer any last minute questions.

We start construction at 8 AM on Friday and work until completion of the day’s tasks or until it gets dark. We’ll continue work on the same schedule, Saturday and Sunday. The hull will be complete on Sunday.

Some additional work may be necessary at home to complete the spars and install the sail. You will learn how to complete the rig properly before the end of the weekend.

Cost

Total cost is estimated to be $1600 including all materials, instructions and sail. We shop for you and find the best, most affordable materials.
Family Boat Building

APPLICATION
UNH Marine Docent Family Boat Building

Adult Name(s) _______________________________________________________

_______________________________________________________

_______________________________________________________

Youth Name(s) ________________________________ Age__________

___________________________________________ Age__________

____________________________________________ Age__________

Address _____________________________ City________________________

State_______________________________ Zip Code______________

Telephone_______________ E-mail__________________________

Describe your family’s experience on the water. Do you own any boats/watercraft?

_____________________________________________________________________

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Describe your family’s woodworking experience/skills. This will help us assign the most appropriate Docent Team to work with you.

_____________________________________________________________________

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_____________________________________________________________________.
Family Boat Building

Where do you plan to sail the boat?__________________________________________
______________________________________________________________________
______________________________________________________________________

I understand and will abide by the schedules, rules and restrictions described in the Docent Family Boat Building Information Sheet including full family participation in, on and off the water training as well as construction. I understand that children will be unable to attend school on the Friday of construction. I further understand that photographs and video may be taken during construction and authorize the use of those photos and video images for publicity and publication purposes.

Signature_______________________________________Date__________________

Must be attached: (1) Completed essay; and (2) $1600 check (payable to UNH, cashed upon acceptance). Upon acceptance participants will be required to sign a liability release.

Mail or deliver completed essay and application by April 20, 2015 to:

Family Boat Building Program
UNH Marine Docents
122 Mast Road
Lee, NH 03861

PLEASE NOTE: WE WILL PROVIDE TIPS AND ANSWER SAILING QUESTIONS ON HOW TO SAIL YOUR NEW BOAT AND WE WILL PROVIDE ONE DAY OF SAILING INSTRUCTIONS, BUT ONE DAY WILL NOT MAKE YOU A SAILOR. IT WILL BE YOUR RESPONSIBILITY TO FIND A QUALIFIED INSTRUCTOR IF YOU ARE NOT ALREADY A SAILOR
Family Boat Building

APPLICATION ESSAY
UNH Marine Docent Family Boat Building

(This must be written by the youngest member of your team)

Please tell us why you believe your family would benefit from participation in the UNH Marine Docent Family Boat Building Project. The information you provide here may be the only way we have to determine which families will benefit the most and do the most to make the program successful. It is critical that the youth(s) be enthusiastic and able to concentrate and participate for three long days of building with the family. Include whatever you and your children believe is important. Use additional sheets if necessary.

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Name____________________________________  Date_________________________